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(19)

(54) IMPROVEMENTS RELATING TO AUXILIARY WING MIRROR ATTACHMENTS FOR USE ON MOTOR VEHICLES

(71) We, RAYDYOT LIMITED, of Waterfall Lane, Cradley Heath, Warley, in the County of Worcester, a British Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to auxiliary wing mirror attachments for use on motor vehicles and of the kind comprising a casing provided with a reflective mirror part and at least two spaced abutments which are relatively movable whereby the said abutments may be clamped about an existing vehicle wing mirror so as to provide a field of view from the auxiliary mirror attachment which is different from that provided by the existing mirror. Auxiliary mirror attachments of this kind are particularly useful when a motor vehicle is to be used, temporarily, for towing a wide load, for example, a caravan, since the field of view of the existing mirror is obscured by the lateral portions of the caravan. Also, use of the auxiliary mirror attachment avoids any necessity for adjustment of the existing mirror after dismounting of the auxiliary mirror attachment. The reflective mirror part of the auxiliary mirror may be arranged to be located partly or wholly outside the existing wing mirror when the attachment is connected to the existing mirror, that is to say on the opposite side of the existing wing mirror to the vehicle, or to be inclined at different angles relative to the length of the vehicle, or both. Mirrors of this kind are described for example in British Patents Nos. 1,173,625; 1,202,646; and 1,322,787.

One of the problems inherent in the design of auxiliary mirror attachments of the kind referred to is to provide satisfactory fixing, particularly in view of the widely different shapes of wing mirrors which may be not only circular or rectangular but also of other geometrical or asymmetrical shapes selected for styling purposes. The abutments are required to make sufficiently good contact with the existing wing mirror and to grip the same sufficiently firmly to secure the auxiliary mirror attachment in position against, for example, vibration and wind pressure when the vehicle is in motion. It is also a requirement that the auxiliary wing mirror attachment should be readily attachable and detachable without damaging the existing mirror.

In accordance with the present invention we provide an auxiliary wing mirror attachment comprising a casing mounting a reflective mirror part, a first abutment means mounted on the casing for co-operation with one edge of an existing vehicle wing mirror, a second abutment means for co-operation with a second edge of said wing mirror, the second abutment means being mounted on an arm which is slidably adjustable relative to the casing to vary the spacing between the first and second abutment means, and the first abutment means being mounted on the casing for adjustment pivotally with respect to said arm whereby wing mirrors of different configurations can be accommodated between said first and second abutment means.

The invention will now be described with reference to the accompanying drawing wherein:—

Figure 1 is a perspective view of an auxiliary mirror attachment taken from the rear face thereof; and

Figure 2 is a front view showing the auxiliary mirror attachment attached to an existing wing mirror of a motor vehicle.

As shown an auxiliary wing mirror attachment 10 comprises a generally rectangular casing 11 provided on one face

and at one end with a reflective mirror part 12 which may extend over approximately two-thirds of the length of the casing 11 and over substantially the whole width of the same.

A portion 13 of the casing 11 comprising substantially the area not covered by the mirror part 12, forms a recess 14 opening on the opposite face of the casing to that provided with the mirror part 12. An arm 15, which may be in the form of a narrow strip of metal, extends along the longitudinal axis of the casing and projects through opposite walls 24*a* and 24*b* bounding the recess 14. The arm 15 carries at one end clear of the casing, abutment means 16 in the form of a plate 17 extending transversely of the length of the arm and provided with a pair of hook-like portions 18 projecting towards the casing 11. The plate 17 is pivoted to the arm 15 so as to be angularly adjustable relative to the arm to allow the plate 16 to take up the most favourable position for engagement of the hooks 18 with an existing mirror rim.

The arm 15 is provided with pairs of apertures 19 along its length, and a wire spring 20 is located in said recess and engages with respective ones of a pair of the apertures 19 so as to permit the arm 15 and first abutment means 16 to be slid relative to the casing for a certain distance and thereafter resiliently oppose further movement of the arm 15 by cooperation of the spring 20 with the adjacent wall 24*a* of the recess.

Also located in the recess 14 and conveniently lying between the base of the recess and the arm 15 so as to be retained in position thereby is an abutment 21. The abutment 21 may be identical to the abutment 16 (for simplicity in manufacture) but is not pivotally connected to the arm and is turned in mirror image relation to the abutment 16 so that its hooks 22 face those 18 of the other abutment whereby an existing wing mirror may be engaged between the respective hooks 18 and 22 to attach the auxiliary mirror attachment to the existing wing mirror in the manner shown in Figure 2.

Although the abutment 21 is mounted loosely in the recess 14, it is only allowed substantial movement in the direction of the longitudinal axis of the arm, movement in other directions being limited by abutment of the extremities of the second abutment with walls 24*c* and 24*d* bounding the recess and also ribs 25 provided on the base of the recess 14.

Conveniently the abutment 21 has an edge portion between the hooks which is curved, or includes two inclined portions so as to provide a central fulcrum which engages with the adjacent wall 24*b* of the recess so that the abutment 21 can rock about its fulcrum relative to the arm 15.

If the mirror attachment thus described is to be used with a circular or rectangular mirror head of an existing wing mirror the two abutments 16, 21 may be generally parallel and both extend perpendicularly of the length of the arm. Where the existing mirror head is asymmetrical or of other complex shape, one or both abutments may tilt from perpendicular relation with the arm 15 in the same or different directions to accommodate the mirror head between them.

Differences in longitudinal dimensions of existing mirror heads may be accommodated by releasing the spring 20 from the arm 15 and re-engaging the spring at a different positions along the length of the arm. The length of the arm and possible attachment positions of the spring thereto is such that, in all possible positions, a portion of the arm extends wholly across the recess 14 and into the casing behind the mirror part 12 so as to retain the abutment 21 within the recess 14 at all times.

WHAT WE CLAIM IS:—

1. An auxiliary wing mirror attachment comprising a casing mounting a reflective mirror part, a first abutment means mounted on the casing for co-operation with one edge of an existing vehicle wing mirror, a second abutment means for co-operation with a second edge of said wing mirror, the second abutment means being mounted on an arm which is slidably adjustable relative to the casing to vary the spacing between the first and second abutment means, and the first abutment means being mounted on the casing for adjustment pivotally with respect to said arm whereby wing mirrors of different configurations can be accommodated between said first and second abutment means.

2. An auxiliary wing mirror attachment according to Claim 1 wherein the first abutment means is trapped between said arm and the base of a recess formed in the face of the casing which is oppositely directed to the face on which the mirror part is carried.

3. An auxiliary wing mirror attachment as claimed in Claim 1, or Claim 2, wherein said first abutment means is adjustable transversely of said arm in addition to being pivotally adjustable relative thereto.

4. An auxiliary wing mirror attachment according to Claim 1, or Claim 2, wherein a fulcrum is provided whereby the first abutment means is rockable relative to said arm and is free for adjustment transversely thereof.

5. An auxiliary wing mirror attachment according to any one of the preceding

Claims wherein the second abutment means is pivotally mounted on said arm.

6. An auxiliary wing mirror attachment according to any one of the preceding Claims wherein the casing is elongate and said arm is slidable longitudinally thereof.

7. An auxiliary wing mirror according to any one of the preceding Claims wherein the first and second abutment means are of identical configuration.

8. An auxiliary wing mirror attachment according to Claim 7 wherein each of said abutment means comprises a first elongate plate having hook-like portions provided at the extremities thereof and said first and second abutment means are arranged in mirror image relation to one another.

9. An auxiliary wing mirror attachment substantially as hereinbefore described with reference to, and as shown in, Figures 1 and 2 of the accompanying drawing.

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1 SHEET

COMPLETE SPECIFICATION

This drawing is a reproduction of the Original on a reduced scale.

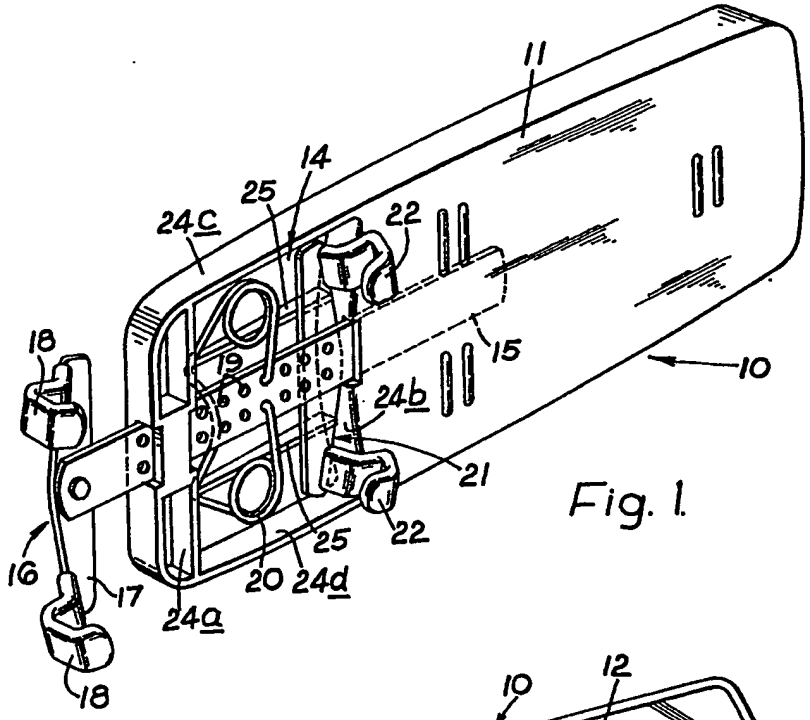

Fig. 1.

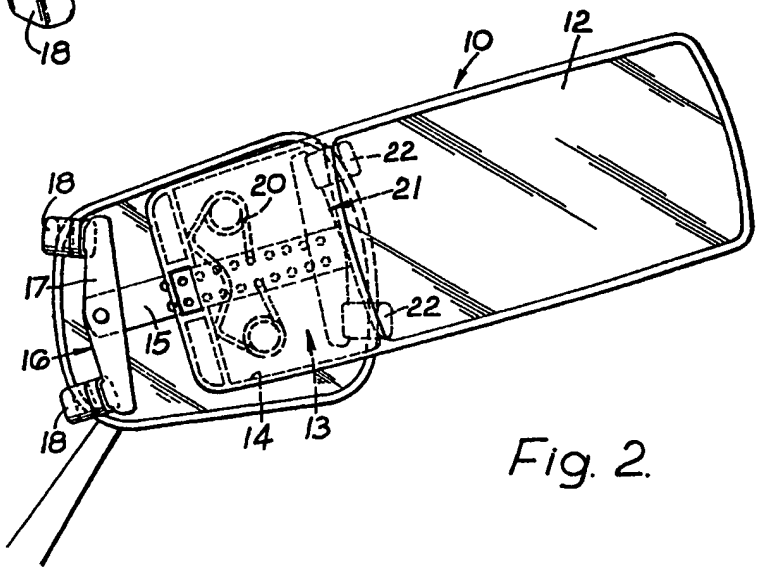

Fig. 2.